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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/684,485 | 10/10/2000 | Christopher Anthony Kaminski | RD-27,502/USA | 4124 |

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EXAMINER

TAMAI, KARL I

| ART UNIT | PAPER NUMBER |
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2834

DATE MAILED: 07/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/684,485

Applicant(s)

KAMINSKI ET AL.

Examiner

Tamai IE Karl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the flat winding being orthogonal to the axis of rotation must be shown or the features canceled from the claims. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The specification does not have any written description of the flat winding being orthogonal to the axis of rotation, therefore it does not have a full, clear, concise, and exact written description of the flat winding being orthogonal to the axis of rotation.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Gillet (FR 2 465 349). Gillet teaches a flat winding with an angled end turn with the center of the winding being orthogonal to the axis of rotation. The vertices of the stacked flat windings lie on a plane that extends through the axis of rotation.

6. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Toshiba (JP 8-80005). Toshiba teaches a flat winding with an angled end turn with the center of the winding being orthogonal to the axis of rotation. The vertices of the stacked flat windings lie on a plane that extends through the axis of rotation.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirtley, Jr. et al. (Kirtley)(US 3999091) and Coggeshall(US 2844746). Kirtley teaches a superconducting winding 3 for an electric machine with angled end turns with the vertexes aligned with the axis of rotation. Kirtley teaches the axis of the coil being aligned orthogonal to the axis of rotation. Kirtley teaches every aspect of the invention except the winding being flat and blocks between the windings. Coggeshall teaches the winding 2 is wound with a bar(flat) wire with blocks 7 disposed between the windings. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the machine of Kirtley with the flat winding of Coggeshall to provide a support which prevents axial shifting of the coils.

9. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirtley, Jr. et al.(Kirtley)(US 3999091) and Coggeshall(US 2844746), in further view of Mosher et al.(Mosher)(US 4614888). Kirtley and Coggeshall teach every aspect of the invention, as discussed above, except rotor with spindles on the end of a body with parallel sides which are perpendicular to the pole faces. Mosher teaches a rotor with spindles 16, 18 attached to the end of a rotor core with sides perpendicular sides to the poles faces. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the machine of Kirtley and Coggeshall with the core and shaft of Mosher to allow disassembly of the rotor with out loss of precise alignment of the elements.

In an attempt to further prosecution on the merits, the examiner has duplicated the 35 USC 103 rejection with a reference to show the coil strictly orthogonal to the axis of rotation, as argued by the applicant, but not clearly stated in the claims.

10. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirtley, Jr. et al. (Kirtley)(US 3999091) and Coggeshall(US 2844746) and Laskaris et al. (Laskaris)(US 5,548,168). Kirtley teaches a superconducting winding 3 for an electric machine with angled end turns with the vertexes aligned with the axis of rotation. Kirtley teaches the axis of the coil being aligned orthogonal to the axis of rotation. Kirtley teaches every aspect of the invention except the winding being flat and blocks between the windings, and the coil being aligned orthogonal and extending through the axis of rotation. Coggeshall teaches the winding 2 is wound with a bar (flat) wire with blocks 7 disposed between the windings. Laskaris teaches the coil 20 being aligned orthogonal and extending through the axis of rotation. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the machine of Kirtley with the flat winding of Coggeshall to provide a support which prevents axial shifting of the coils, with the coil positioned on the axis of rotation as in Kirtley because the solid core allows less superconductive wire to be used.

11. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirtley, Jr. et al.(Kirtley)(US 3999091) and Coggeshall(US 2844746) and Laskaris et al. (Laskaris)(US 5,548,168), in further view of Mosher et al.(Mosher)(US 4614888). Kirtley

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and Coggeshall teach every aspect of the invention, as discussed above, except rotor with spindles on the end of a body with parallel sides which are perpendicular to the pole faces. Mosher teaches a rotor with spindles 16, 18 attached to the end of a rotor core with sides perpendicular sides to the poles faces. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the machine of Kirtley and Coggeshall with the core and shaft of Mosher to allow disassembly of the rotor with out loss of precise alignment of the elements.

Response to Arguments

12. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new grounds of rejection.

Conclusion

13. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (703) 305-7066.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Nestor Ramirez, can be reached at (703) 308-1371. The facsimile number for the Group is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Karl I Tamai
PRIMARY PATENT EXAMINER
June 27, 2002



KARL TAMAI
PRIMARY EXAMINER